U.S.S.N.: 09/507,146

Art Unit: 1642

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- 11. The composition of claim 1, wherein the pharmacologically active chemokine has an antagonist activity.
- 15. The composition of claim 1, wherein the complex has a half-life ranging from about 15 minutes to about 1 hour in the presence of supra physiological levels of biotin and an affinity constant ranging from about 1.0 to about 100.0 nanomolar.
- 20. The composition of claim 1, wherein the anti-biotin antibody comprises a therapeutic agent that is a cytotoxic agent.
- 21. The composition of claim 1, wherein the anti-biotin antibody comprises a diagnostic agent attached thereto.
- The composition of claim 1, wherein the anti-biotin antibody has a dual specificity.
- 23. The composition of claim 22, wherein the anti-biotin antibody selectively binds to a tumor cell associated antigen.
- 24. The composition of claim 22, wherein the anti-biotin antibody selectively binds to a viral associated antigen.
  - 34. A composition comprising:
    - (a) a biotin conjugate comprising
      - (i) a biotin covalently coupled to
      - (ii) a chemokine having a pharmacological activity; and
    - (b) a pharmaceutically acceptable carrier, wherein the pharmaceutically acceptable carrier is suitable for parenteral administration.
  - 41. The composition of claim 1, wherein the composition is lyophilized.
- 42. The composition of claim 1, further comprising a pharmaceutically acceptable carrier.
- 43. The composition of claim 42, wherein the pharmaceutically acceptable carrier is acceptable for a mode of delivery selected from the group consisting of: intradermal delivery, intramuscular delivery, intravenous delivery, subcutaneous delivery, and controlled release delivery.

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44. The composition of claim 1, wherein the biotin is selected from the group consisting of L-biotin, D-biotin and derivative thereof.

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- 45. The composition of claim 1, wherein the chemokine is selected from the group consisting of the chemokines of Table 1.
- 46. The composition of claim 1, wherein the chemokine has a carboxyl terminus and the biotin is covalent attached to the carboxyl terminus of the chemokine.
- 47. The composition of claim 1, wherein the biotin is covalently coupled to the pharmacologically active chemokine via a linker molecule.
- 48. The composition of claim 1, wherein the complex has a half-life ranging from about 15 minutes to about 1 hour in the presence of supra physiological levels of biotin.
- 49. The composition of claim 1, wherein the anti-biotin antibody has an affinity constant ranging from about 1.0 to about 100.0 nanomolar.
- 50. The composition of claim 1, wherein the anti-biotin antibody is selected from the group consisting of an intact antibody, and an antibody fragment.
- 51. The composition of claim 1, wherein the anti-biotin antibody is a human antibody or fragment thereof.
- 52. The composition of claim 1, wherein the anti-biotin antibody has a subclass selected from the group consisting of a IgG1 subclass, and an IgG3 subclass.
- 53. The composition of claim 1, wherein the anti-biotin antibody comprises a therapeutic agent attached thereto.
- 54. The composition of claim 1, wherein the complex has a half-life of from one day to one month in vivo.
- 55. The composition of claim 1, wherein the complex has a half-life of from one week to two weeks in vivo.
- 59. (New) The composition of claim 34, wherein the pharmacologically active chemokine has an agonist activity.

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